



## Hardened Subminiature Telemetry and Sensor System

Several DoD agencies are engaged in a multidisciplinary effort to improve the effectiveness of inventory and developmental munitions systems while significantly reducing testing, training, and development costs. This program — the Hardened Subminiature Telemetry and Sensor System (HSTSS) Program — is generating a family of low-cost, configurable, rugged, and miniaturized technologies that can be assembled into a munition as an instrumentation or telemetry package. HSTSS leverages recent advances in commercial microelectronics to provide instrumentation suites as small as one cubic inch that survive and operate in the harsh environments experienced by gun-launched projectiles and tactical rockets and missiles.

HSTSS components include telemetry transmitter chips, data acquisition chips with programmable signal conditioning, inertial sensors leveraging DARPA microelectromechanical system (MEMS) sensors, and high-g high-density electronic packaging. The HSTSS devices will be available from commercial sources as finished modules, packaged integrated circuits, or bare die. HSTSS technologies are designed to be modular to promote integration into contractor designed and built munitions.

### FOR FURTHER INFORMATION, CONTACT:

Mr. Ronald Colangelo  
HSTSS Project Director  
U.S. Army Simulation, Training, and Instrumentation Command  
Program Manager for Instrumentation, Targets, and Threat Simulators  
Orlando, FL  
(407) 384-5236 or DSN 970-5236  
Ronald\_Colangelo@stricom.army.mil

Dr. William D'Amico  
U.S. Army Research Laboratory  
Weapons and Materials Research Directorate  
Aberdeen Proving Ground, MD 21005  
(410) 306-0980 or DSN 458-0980  
damico@arl.mil or amsrl-wm@arl.mil

